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Federal Communications Commission
Office of the Secretary

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In the Matter of the Redevelopment of
Spectrum to Encourage Innovation in the
Use of New Telecommunications Technologies.

Comments of George DuBois.

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A. General Need.

1. It has always been my understanding that the primary consideration in the process of allotting spectrum for new services is whether the use of radio frequencies is required or not. When the mobile telephone service was proposed back in the 40's, this was no doubt considered. Obviously, the use of radio spectrum is required for a mobile telephone service. In the NPRM in Docket 92-9, the Commission itself notes that "in allocating spectrum, one of the primary considerations is whether there is a technological dependence of the service on radio rather than wirelines"! (fn. 17)

2. I would contend that this is not the case with most of the services proposed under the generic term, Personal Communications Service. Most or all of the proposed uses can be met, or are now being met, by alternative means.

3. The proposed CT-2 portable telephones are a prime example. The concept may have some application in European countries, but not in the United States. Even then, there is some doubt. The transmitter sites for the new CT-2 - type telephones would be located in public places, such as transportation terminals, service stations, malls, etc. These are all places that usually have pay phones!! Maybe I don't understand the concept! Trade magazines have indicated that the British Telepoint system has more transmitter sites than customers! Surveys performed thus far indicate less than enthusiastic demand in this country, since the new phones will only be able to be used for outgoing calls. The supposed savings contemplated for the simpler CT-2 equipment is no justification for the new service, in and of itself. Finally (and more importantly), the need for portable telephones can easily be met by an existing service, the Cellular Telecommunications Service.

3. Another example that is supposedly in demand is wireless computer terminals. Again, assuming hardwiring is such a burden, this is a need that can be met using alternative techniques, or the use of other bands (such as the Part 15 bands, or spectrum above 3 GHz). The costs of moving computer terminals within a plant or facility is a cost of doing business. The allocation of R.F. spectrum and relocation of hundreds of existing users should not be made to save corporations a few bucks on their housekeeping costs. Plus, again, alternatives are readily available. Innovative American companies are now marketing infrared wireless computer terminals.

B. Need for U.S. Allocation

5. Another point that is brought up repeatedly is the need for the allocation of spectrum for these "innovative" new services so that the U.S. can retain its competitiveness in the world marketplace. In the first place, this is a real joke. At best, the only thing that will happen is the same thing that has happened with every major development in the electronics field over the last couple of decades. If we are lucky, a few companies will concentrate on the design and engineering of a number of new and innovative products.

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The manufacturing of these products will then be exported offshore. As a relevant example, look at the cellular telephone industry. As far as I know, there are only two domestic manufacturers of cellular telephones, one of them being a Japanese company that only assembles foreign-made subassemblies in this country.

6. American companies are entirely free to manufacture and produce equipment for PCS-type services for use in foreign countries. No U.S. allocation of spectrum is required to encourage or support such an industry. If worldwide demand for PCS-type services materializes, along with the subsequent need for radio equipment, there will be every incentive for American companies to enter this market. American companies presently make radio equipment for use in other countries, showing that the absence of a U.S. allocation is no impediment to U.S. competitiveness. Examples are U.S.-made land mobile equipment for the European 66 MHz "Mid-band", trunked land mobile radio for the 406 to 420 and other bands below 800 MHz, and so on.

7. More to the point, U.S. competitiveness in world markets has absolutely no pertinence to the allocation of radio frequency spectrum. It does not indicate a need for radio spectrum for the new service or services. It certainly does not indicate demand for the new service, or in any way serve as justification for allotment of spectrum for a new radio service. It has absolutely no relevance in this proceeding.

C. Worldwide Compatibility

8. Another factor the Commission noted was the desirability of compatible spectrum, a common worldwide allocation. This, again, is simply not warranted. There is no indication of any user demand for a common allotment worldwide.

9. As an example, there is no common worldwide allocation for the Cellular Telecommunications Radio Service. Even Canada has an additional control channel not assigned in the United States. Yet cellular has managed to flourish just fine. A common allocation was not even a consideration in the rulemaking proceeding for the cellular service. Manufacturers and retailers seem to have survived and there is no perceived demand by users for such an accommodation. It is not unreasonable to conclude that an allocation for many of the proposed personal communications devices could be made in almost any band, including the ISM/Part 15 bands at 2.5 and 5 GHz, the "state of the art" notwithstanding.

D. Accommodation of Existing Fixed Users

10. A dilemma seemingly taken rather lightly in the Notice of Proposed Rulemaking is that of the plight of existing Fixed users in the 2 GHz bands.

11. Buyouts by new licensees, tax certificates, and so forth, do not take into account that alternatives may simply not be available. Plus, the ten or fifteen year relocation period may take into account the amortization period of the equipment itself, but fails to consider that many of the communications needs that will continue to have to be met by radio links will have to be relocated to other bands. These will probably be at 6 GHz and higher, and may require complete system redesign, relocation of transmitter sites and so on, to be accommodated in the higher frequency bands, with the accompanying reduction in path lengths. These additional transmitter sites may not be available, or there simply may not be any channels available in the other Fixed service bands. Financial compensation by the "new technology" users will do absolutely nothing to alleviate this situation.

12. A potentially serious impediment to the proposed new uses is that of existing Public Safety licensees, who will be allow continued operation indefinitely. An "emerging technology" service that requires a large amount of contiguous spectrum might be unable to operate in a significant portion of any of the proposed segments if an existing local government user is operating on a frequency that precludes such operation - in the middle of any of the three segments, for example. The Public Safety licensee is under no obligation to change frequency, has no financial incentive to do so, and will undoubtedly not even desire to do so.

E. Conclusion

13. In summary, none of the "emerging technology" services proposed thus far justify the allocation of radio frequency spectrum and the subsequent (and costly) relocation of the existing licensees from the proposed Fixed service bands. There is no need for a U.S. allocation simply to encourage development of new technology and equipment, because this can and no doubt will happen whether an exclusive U.S. allocation is made or not. The same logic applies to any perceived need for a common worldwide allocation, for which there is no demonstrated consumer demand.

14. The existing licensees in the 2 GHz band use this band for a reason. It is the lowest in frequency and consequently can accommodate the longest path lengths. Of all users of Fixed service radio spectrum, these would be the LEAST likely candidates to be able to use alternative communications means. The mandatory relocation of these users would impose an intolerable burden on many of these users.

15. Finally, most or all of the "personal communications"- type services do not warrant an allocation of scarce RF spectrum, and many can be met by existing services. Many are not in demand by other than the equipment and communications services retailers themselves.

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